

ABSTRACT**PACKET DATA COMMUNICATIONS**

An internet packet comprises a header field, the header field including a field identifying a source address of the internet packet, a field identifying the destination address of the internet packet and a next header field identifying whether an extension header follows the header and a type of the extension header. The extension header indicates a hop-by-hop option header, the hop-by-hop extension header including a router alert option header type indicating that the extension field is optional for a router to read, and a field providing information for a gateway support node of a packet radio system network. A gateway support node is thereby provided with information, which may be required for example to support a mobile internet protocol (IP). However, by providing the router alert option field, a router is not required to read the remainder of the hop-by-hop option field. As a result, a reduction in the performance of the router in routing internet packets, which may have been incurred if the router was required to read all the hop-by-hop extension field can be limited.

Figure 6